2b. C. PUBESCENS (Meyer) Rollins, var. **elongata** var. nov. Herba perennis; inflorescentiis 4–10 cm. longis; siliquis 2.5–3.5 mm. latis. MICHIGAN: Ypsilanti, June, 1919, *C. Billington* s. n. (G); Aug., 1919, *B. A. Walpole* s. n. (G). IDAHO: Pocatello, July & Aug., 1925, *Mrs. M. E. Soth* s. n. (G, NY, US). WYOMING: near Powell, Park Co., June, 1933, *Rollins 324* (R). COLORADO: Fort Collins, *B. Thornton 1* (US); near La Jara, Aug., 1926, *M. W. Talbot* s. n. (US). CALIFORNIA: edge of an alfalfa field, near Sacramento, June, 1932, *Bellue* s. n. (US). OREGON: near Redmond, Sept., 1922, *Whited 499* (G); near Burns, Harney Co., July 9, 1933, *J. W. Thompson 11960* (G, TYPE; NY, US, *isotypes*); Klamath Falls, June, 1923, *Applegate 3603* (G). WASHINGTON: roadside south of Ellensburg, June, 1933, *Thompson 9047* (G, US); May, 1935, *Thompson 11539* (G, NY, US); near Tonasket, June, 1931, *Thompson 7107* (G, US); wheat field, Pullman, July, 1925, *R. F. Haxton* s. n. (G). Presumably the same plant has been reported from Pennsylvania by J. M. Fogg, Jr.,[1] but I have not seen specimens of the collections cited. Our plants are neither of the following species which have not turned up as weeds in North America.

Although I have not seen specimens of *Hymenophysa fenestrata* and *H. macrocarpa*, judging by their descriptions and notes concerning them, they are also to be included in *Cardaria*.

3. C. **fenestrata** (Boiss.), comb. nov.; based on *Hymenophysa fenestrata* Boiss. in Ann. Sci. Natur. Bot. **17**[2]**:** 197 (1842). Turkestan.

4. C. **macrocarpa** (Franch.), comb. nov.; based on *Hymenophysa macrocarpa* Franch. in Ann. Sci. Natur. Bot. **15**[6]**:** 233 (1883). Persia.

CONTRIBUTIONS TO THE BOTANY OF MICHIGAN NO. 17

OLIVER A. FARWELL

This number of the Contributions deals with new varieties and with plants that are, as far as my knowledge goes, recorded for Michigan for the first time and extensions of range.

I extend my sincere thanks to Prof. M. L. Fernald for timely suggestions and comments.

PANICUM BOREALE Nash, var. **michiganense,** n. var., *foliis subtus et vaginis plus minusve pubescentibus pustulatis paginis supra hirsutis et nodorum dorsis ad vaginarum apices pubescenti-*

[1] RHODORA **39:** 190 (1937).

bus.—Foliage pubescent, the underside of the leaves and the sheaths papillose-pubescent and the backs of the nodes between the leaves and their sheaths pubescent, usually densely white-pubescent toward the margins.—WAYNE Co.: Detroit, no. 1425 (TYPE, in my herbarium) August 25, 1893. Oakland Co.: Orion, no. 5050, July 7, 1918. Keweenaw Co.: Cliff Mine, nos. 643, August 8, 1888 and 11355, July 16, 1936.

The specific type of this species is said to be glabrous except for some marginal ciliation at the base of the leaves and the lowest papillose sheath.

POA ANNUA L., VAR. REPTANS Haussknecht. This is an unusual form for an ordinarily annual plant; it is perennial by means of the prostrate culms which take root and produce new plants at their nodes. Much branched. Occasional, but may be found to be more prevalent than is supposed if search is made for it. In moist grounds in ravines, on lake shores, and in cultivated grounds. HOUGHTON Co.: Douglas Houghton ravine, no. 10859, June 18, 1935; shores of Torch lake, no. 11924, May 17, 1939; Lake Linden, no. 12248, October 6, 1939.

CALAMAGROSTIS LACUSTRIS (Kearney) Nash. Kearney cited Porter's collection from Isle Royale (Keweenaw Co.) in his original description; but I believe this is the first record from the mainland of Michigan. HOUGHTON Co.: n. w. shores of Rice lake, no. 12168, September 11, 1939.

CALAMAGROSTIS CANADENSIS (MX.) Beauv. var. MACOUNIANA (Vasey) Stebbins. The following records nearly fill up the gap between its recorded eastern and western ranges, making the range, except for New York, continuous from the Rocky Mountain region to the Atlantic. WAYNE Co.: Belle Isle in Detroit River, no. 1502a, June 2, 1896; Wayne, no. 9151, July 6, 1932. OAKLAND Co.: Rochester, no. 8580, September 10, 1929. KEWEENAW Co.: lake Glazon woods, no. 12224½, September 25, 1939.

NEMOPANTHUS MUCRONATA (L.) Trel., var. **chrysocarpa,** n. var., *fructu flavo pallido, majore*.—Differs from the ordinary red-fruited type in its slightly larger, pale yellow fruit.—In swampy ground. HOUGHTON Co.: vic. Rice lake, no. 12140 (TYPE, in my herbarium) August 30, 1939.

PENTSTEMON LAEVIGATUS Ait., var. DIGITALIS (Sweet) A. Gr. The usual range is from Maine southwestward in a broad belt to Iowa, Oklahoma and Texas. This record extends the range far to the north, it being the first time reported from the Upper Peninsula of Michigan. HOUGHTON Co.: Sawmill Creek valley, Earnest Kilmer of Lake Linden, Michigan, July 11, 1939. O. A. Farwell, no. 11990, July 18, 1939.

PARTHENIUM INTEGRIFOLIUM L. Plentiful in clearings at the place cited below. Not before recorded for Michigan. KEWEENAW Co.: Agate Harbor Mine, the Misses *Ruth and Frances Lyon* of Calumet, Michigan, September 20, 1939 and *O. A. Farwell*, no. 12236, September 29, 1939.

LAKE LINDEN, Michigan

A GLOBOSE FORM OF PITCH PINE (PINUS RIGIDA) IN VIRGINIA. —PINUS RIGIDA Mill. forma **globosa,** forma nov. Arbor globosa compacta; foliis normalibus; strobilis 4.5–5.5 cm. longis, 4.8–5.3 cm. latis, quam eis speciei paullo minoribus.—VIRGINIA: single tree in pasture just south of Hopewell Gap, Bull Run Mountain, Fauquier Co., March 10, 1940, *Allard* 7587 (TYPE no. 1,785,345, U. S. National Herbarium; duplicates in National Arboretum Herbarium, Gray Herbarium, Arnold Arboretum), also 4351, 5688, 6119.

The dimensions of this particular tree are as follows: Height 7 feet, 6 inches; spread of crown 12 feet; diameter of trunk at ground 6.5 inches. This tree developed cones while very small, some of these originating on twigs just above the ground. These are variable in size, the smallest ranging from 1¼ to 1½ inches in length; the largest 2 to 2¼ inches in length.

The specializations and relationships of the fibrovascular bundles, the number and distribution of the resin canals, etc., as determined by microtome cross sections of the needles of this globose form appear to be no different from those of trees of normal growth habit.

The Pitch Pine is of more or less general occurrence as an element of the wooded slopes throughout Bull Run Mountain. It is also an important element of the old field successions everywhere in this area, in many places competing with the Virginia Pine (*Pinus virginiana*), the only other species of pine colonizing in old fields here.—H. A. ALLARD, Department of Agriculture, Washington.

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